

Brookhaven National Laboratory Economic Impact Report

Leading Facilities for Innovation and Invention



National Synchrotron Light Sources

NSLS provides intense beams of high-frequency light and sophisticated imaging techniques to capture nanoscale details of materials ranging from proteins to semiconductors, with more than 2,400 researchers from about 400 universities, labs, and companies using the facility every year. In 2015, NSLS will be replaced by NSLS-II—10,000 times brighter and designed to advance technologies including hydrogen nanocatalysts and lithium-ion batteries.



Relativistic Heavy Ion Collider

RHIC smashes particles together at nearly the speed of light to recreate the conditions of the early universe. These collisions reveal the fundamental building blocks of matter and unlock the secrets of the force that holds together 99 percent of the visible universe—everything from stars to planets and people.



Center for Functional Nanomaterials

The CFN provides state-of-the-art tools for creating and exploring nanoscale materials. CFN scientists specialize in atomic-level tailoring of materials to address a wide range of energy frontiers, including solar cell technology, nanocatalyst synthesis and characterization, and fabrication of biological materials.



Interdisciplinary Science Building

This hub for energy research offers customized laboratories for multidisciplinary research that tackles the world's most pressing energy and environmental challenges. Scientists at the ISB collaborate to engineer and optimize breakthrough technologies for batteries, biofuels, and solar panels.

The figures in this report were prepared by Appleseed Inc., www.appleseedinc.com

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Contact Us:

Brookhaven National Laboratory
Media & Communications Office
(631) 344-2345



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Brookhaven National Laboratory The Economic Engine of World-Class Science

The technologies of tomorrow are tough to predict, but one thing is certain: innovation forms the foundation of a healthy economy. In an uncertain economic climate, the greatest opportunities for local, national, and global growth rest with the time-tested impact of large-scale research and development. Brookhaven National Laboratory's discoveries at the most exciting frontiers of science — from the fabric of the cosmos to zero-emission vehicles — generate the kinds of unprecedented, game-changing advances that help shape the future.

Owned and primarily funded by the U.S. Department of Energy's Office of Science, Brookhaven Lab is one of New York State's largest scientific research centers. Located on a 5,300-acre site in central Long Island, the Lab employs more than 3,000 full-time workers and is host to just as many visiting researchers each year from universities, industry, and government agencies that use its cutting-edge facilities.

The world's foremost scientists join with the local workforce in the enterprise of exploration, including massive construction projects and ever-expanding support services. But beyond the hundreds of millions in federal funding coming to Long Island and the thousands of jobs created, Brookhaven Lab anchors New York as a leading center for innovation.

Breakthrough science also helps foster a sense of wonder and ambition in the Long Island community, bolstered by strong educational outreach and a robust partnership with Stony Brook University.

The scientific strides taken every day at Brookhaven Lab spark ripples across the entire economic landscape, from inspiring local entrepreneurs to powering global industries.

By the Numbers...

State and Local *Impacts*
 National *Influence*
 Global *Reach*

\$678 million

in economic output in New York State generated by Brookhaven Lab and its visitors

\$696 million

in total funding

5,480 jobs

created throughout New York State

3,100

employees **98%** living on Long Island

3,474

visiting researchers, including **1,089** from New York State

7% growth

in employment from 2009 to 2012

\$42.3 million

in goods and services purchased from New York State companies, including

\$31.7 million

from Long Island companies

245

full-time-equivalent jobs directly supported throughout New York State, including

187

on Long Island

\$47.4 million

invested in new construction and renovation

\$45.8 million

paid to New York State contractors, including

\$30.6 million

paid to Long Island contractors

258

jobs directly supported in construction and related industries in New York State, including

174

with Long Island contractors

From Exploring the Origin of the Universe to Developing the Technology of Tomorrow

Brookhaven Lab's extensive core research capabilities advance the missions of the U.S. Department of Energy's Office of Science and help sustain a competitive and innovative national economy. Brookhaven combines a rich history of scientific breakthroughs—including seven Nobel Prizes and countless other awards—with leading expertise and cutting-edge facilities.



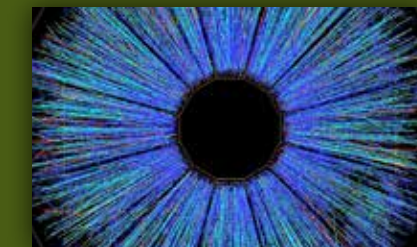
Energy Security

blazing innovative trails toward a sustainable future powered by solar, wind, hydrogen, and other renewable sources



Physics of the Universe

exploring cosmic mysteries across the smallest and largest scales imaginable, from subatomic neutrinos to dark energy



QCD Matter

colliding subatomic particles to recreate matter from the dawn of time and probe the force that gives shape to all visible matter in the universe today



Photon Sciences

focusing ultra-bright light to reveal the nanoscale structures of materials critically important to biology, technology, and more



Climate, Environment, Biosciences

mapping climate change, tracking greenhouse gas emissions, and decoding plant biology to protect our planet's future

The Enterprise of Exploration